EXHIBIT A

CURRICULUM VITAE

ROBIN A. FELDER, Ph.D.

ADDRESS: University of Virginia Health Sciences Center

Post Office Box 800403

Charlottesville, Virginia 22908

BIRTH DATE: April 25, 1954

BIRTHPLACE: Ft. Monmouth, New Jersey

EDUCATION: Georgetown University Biochemistry, 1978-1983

Ph.D. - Biochemistry, February 1983

The College of William and Mary, 1973-1977

B.S. - Chemistry, May 1977

CURRENT POSITIONS:

January 2000 -present

2002 – present Chairman of the Board, Global Cell Solutions, Charlottesville, VA

Director, Medical Automation Research Center, University of Virginia,

1

Charlottesville, VA

Visiting Professor of Pathology, Johns Hopkins University School of

Medicine, Baltimore, MD

CEO – Medical Automation.org (non-profit educational organization),

Charlottesville, VA

CEO - Medical Robotics LLC, Charlottesville, VA

March 2002 - present CEO – Hypogen Inc., Charlottesville, VA

July 1996 - present Professor of Pathology, Associate Director of Clinical Chemistry and

Toxicology, University of Virginia, Charlottesville, VA

July 1984 – present Associate Director of Clinical Chemistry and Toxicology, University of

Virginia Health Sciences Center, Charlottesville, VA

EXPERIENCE:

July 1996 – Feb 2003 Editor, Journal of the Association for Laboratory Automation

July 1996 – Dec 2002 President, Association for Laboratory Automation

July 1995 - Dec 2000 Founder and CEO, Association for Laboratory Automation

March 1995 – March 1997 Co-founder, Medical Automation Systems, Inc.

July 1990 - June 1996 Associate Professor of Pathology, University of Virginia Health Sciences

Center, Charlottesville, VA

July 1984 - June 1990 Assistant Professor of Pathology, University of Virginia Health Sciences

Center, Charlottesville, VA

April 1983 - May 1984 Post-doctoral fellow under John Kebabian, National Institutes of

Neurological and Communicative Disorders and Stroke, Experimental

Therapeutics Branch, National Institutes of Health, Bethesda, MD

April 1982 - June 1984	Instructor, Department of Pediatrics, Georgetown University Hospital, Washington, D.C.
July 1981 - March 1982	Research Associate, Department of Pediatrics, Georgetown University Hospital, Washington, D.C.
July 1980 – July 1982	Director, Neonatal Intensive Care Laboratory, Georgetown University
June 1977 – July 1984	Hospital, Washington, D.C. Assistant Supervisor - Neonatology Laboratory, Georgetown University
Julie 1977 July 1907	Hospital, Washington, D.C.
	Instructor of Chemistry, Mount Vernon College, Washington, D.C. and
	House Resident - Counselor for undergraduate females

PATENTS:

Automated Storage and Retrieval Apparatus for Freezers #6,941,762	09.13.05
G Protein-Related Kinase #6,660,474	
Automated Storage/Retrieval Apparatus for Freezers #6,581,395	09.24.03
Automated Storage/Retrieval Apparatus for Freezers #6,688,123	05.05.03
Automated Robotic Pickup and Delivery System #6,543,983	04.08.03
Automated Storage/Retrieval Apparatus for Freezers #6,467,285	10.22.02
Interactive Remote Sample Analysis System #6192320	
Interactive Remote Sample Analysis System #6055487	04.25.99
Interactive Remote Sample Analysis System #5631844	05.20.97
Robotically Operated Laboratory System #5366896	11.22.94

PATENTS PENDING:

11101211011101					
Biosensor for Analyzing Tear Chemistry, #60/652,641	Provisional 02.14.05				
NAPS, Non-Invasive Analysis of Physiologic Signals 60/514,677	Provisional 10.27.03				
Automated Cell Culture System and Process 60/488,068	Provisional 07.17.03				
Automated Storage and Retrieval Apparatus for Freezers					
10/429,490	Provisional				
Axial Extraction of DNA	Provisional				
Point of Care Information Technology (POCT)	Provisional 06.21.02				
Activities for Daily Living 60/380,347	Provisional 05.14.02				
Blood pressure scale 60/369,181	Provisional 04.01.02				
Gait Monitoring 60/369,182	Provisional 04.01.02				
ElderCare walker 60/360,077	Provisional 02.26.02				
Aptobot 60/351,956	Provisional 01.25.02				
SmartHouse 60/323,165	Provisional 09.18.01				
Genes for Human Hypertension PCT/US99/00663	Provisional 01.00.98				
Pick and Place 09/501,863	Provisional 07.07.98				

AWARDS:

Outstanding Speaker Award 2004, AACC (American Association for Clinical
Chemistry)
2nd Place, Darden-UVA Business Plan Competition, Spring 2004, Gupta U, Felder RA
AACC Outstanding Speaker Award

2003	Best Business Plan, Charlottesville Venture Group (CVG), Spring 2003 Business Spotlight (selected top business plan and presentation out of 11 entries for quarterly business plan review), Hullman A, Jose P, Felder R
2003	4th Place, First Annual Purdue National Life Sciences Business Plan Competition, sponsored by Hoffman-LaRoche and Roche Diagnostics, April 2003 (4th place out of 46 entries from around the US), Hullman A, Jose P, Felder R
2003	Finalist, Century Club of George Mason University, Spring 2003 Grubstake Breakfast (quarterly business plan review and presentation), Hullman A, Jose P, Felder R
2003	Darden Business School Annual Business Concept Competition (1st place), Non-invasive Analysis of Physiologic Signals (NAPS), Mack D, Stefan V, Kell S, Alwan M,
2002	Felder RA 1st Place, Darden-UVA Business Plan Competition, Spring 2002, Hullman A, Jose P, Felder R
2002	Point-of-Care Connectivity Award – The Connectivity Consortium, hosted by Enterprise Analysis Corporation, Stamford, CT
2002	Rocket Award, presented to BioPhile Inc, a technology-based company co-founded by Dr. Felder, and based on his patented technology, presented by the Virginia Piedmont Technology Council Tech Awards)
1998	VHS Group Annual "Mover and Shaker Award" for laboratory automation
1996	Manitoba Society for Clinical Chemistry Annual Award, Manitoba, Canada
1991	Fogarty International Fellowship
1989	Young Clinical Investigator Award, Association for Clinical Scientists
1983	Young Investigator Award, American Federation for Clinical Research
1981	Young Investigator Award, American Physiological Society

PROFESSIONAL ORGANIZATIONS:

American Heart Association

American Federation for Clinical Research

American Association for Clinical Chemistry

Association for Clinical Scientists

Association for Laboratory Automation

American Society of Hypertension

Association for Pathology Informatics

International Society for Biological and Environmental Repositories

Society for Biomolecular Screening

Virginia Biotechnology Association

Virginia Society of Pathologists

CURRENT COMMITTEES AND OTHER POSITIONS:

Co-Chair, Medical Automation.org, Helsinki, Finland	2005 - present
Chair, Awards Committee, TETHICS	2004 - 2005
Judge for ComputerWorld Honors Program	2003 - 2005
Scientific Planning Committee, AACC Annual Laboratory	
Automation Conference	2004 - present
Scientific Planning Committee, AACC European Laboratory	
Automation Conference	2004 - present

Board Directors of Targeson LLC	2004 - present
Chair, AACC Laboratory Automation Conference 2007	2004 - present
Chair, Board of Directors, Global Cell Solutions	2003 - present
Chair, Medical Automation Conference, Helsinki, Finland 2007	2003 - present
Scientific Advisory Board, Cell Mechanics	2003 - present
Speaker Series Advisory Board, Darden Business School,	
Batten Institute, University of Virginia	2003 - present
Advisory Board, Healthcare Unbound Conference	2003 - present
Health Data Scientific Awards Committee	2003 - present
Advisory Board for Intelliject (Darden Business/Incubator)	2003 - present
Cell Mechanics, Scientific Advisory Board	2002 - present
Loudoun County Science and Technology Cabinet	2002 - present
Fellow of the National Academy of Clinical Biochemistry	2000 - present
Fellow of the Council for High Blood Pressure Research	2000 - present
Member, Scientific Advisory Board:	
Guidance Technologies Inc.	2001 - present
Genetic Diagnostics Inc.	2000 - present
Integritech Inc.	1998 - present
Counselor, Japanese Cherry Blossom Symposium Governing Council	1998 - present
Chairman, MARC workshops (two held annually at UVA)	1995 - present
Member Editorial Board: Advance News Magazine	1995 - present
Chair of Scientific Advisory Board, BioPhile Inc.	2001 - 2003
Member, UVA Strategic Planning National/International	• • • •
Strategy Workgroup	2000
Member, Scientific Advisory Board:	
Genesis Therapeutics, Inc.	2001 - 2002
Carilion Biomedical Institute	1999 - 2002
Labotix Inc.	1998 - 1999
Chairman, EuroLabAutomation Conference	1998 - 2002
CEO, Association for Laboratory Automation	1995 - 2000
Founder, Association for Laboratory Automation	1995
Editor, Journal of the Association for Laboratory Automation	1995 - 2003
Chairman, LabAutomation conference	1995 - 2002
High Throughput Screening, 31st Annual American Chemical Society	1005
Western Regional Meeting, San Diego, CA	1995
Member Editorial Board:	1000 2004
Clin Chem Acta	1999 - 2004
Advance News Magazine	1995 - 2003
Clinical and Experimental Hypertension	1993 - 1999
Laboratory Information Management	1992 - 1999
Laboratory Robotics and Automation Chairman of the International Symposium on Automation Robotics	1992 - 1998
Chairman of the International Symposium on Automation Robotics	
and Artificial Intelligence Applied to Analytical Chemistry and	1002 1005
Laboratory Medicine Chairman, The Oak Pidge Conference	1993 - 1995 1992 - 1994
Chairman, The Oak Ridge Conference	
Member of the Scientific and Organizational Board of the Second	1772 - 1774

	International Symposium on Automation, Robotics, and Artificial	
	Intelligence Applied to Analytical Chemistry and Laboratory Medicine	1992
	Chairman, International Conference on Robotics in Laboratory	
	Medicine, Charlottesville, VA	1991
	The Oak Ridge Conference Scientific Program Committee	
	(American Association for Clinical Chemistry)	1989 - 1992
	Organizer and co-host with Dr. Robert Carey, Third International	
	Meeting on Peripheral Dopamine, Charlottesville, VA	1989
	Chairman, Symposium on Laboratory Automation National	
	Meeting of the American Association of Clinical Chemistry	1989
	The University of Virginia Radiation Safety Committee	1987 - 1993
GRAI	NTS:	
	Current Grant Support:	
	National Heart Lung and Blood Institute (NHLBI), Dopamine and	
	Angiotensin Receptor Interactions in Genetic Hypertension,	
	(Program Project Grant, \$10,200,000)	2004 - 2009
2.	STTR, National Institutes of Health, In-Home Monitoring of Selected	
	Independent ADLs (Medical Robotics LLC, \$150,000)	2004 - 2005
3.		
	Culture Technology, (Global Cell Solutions LLC, \$99,500)	2004 - 2005
4.		
	Receptor Defect in Hypertension (\$280,000 subcontract to UVA)	2001 - 2005
5.	University of Virginia Medical Center, Charlottesville, VA, support	
	for Clinical Services	1995 - 2005
В. Р	revious Grant Support:	
	Armed Forces Institute of Pathology, Motion Study (\$6700)	2004
	Benefactor gift for ElderCare Project (\$100,000)	2003
	BioPhile Inc., Charlottesville, VA, subcontract of Carilion Biomedical	
	Institute	2001 - 2002
4.	Virginia Tech, Blacksburg, VA, Self-Assembling Materials	
	Robot with Control Software (\$67,240)	2001
5.	National Institutes of Health, R01-HL62252, Principal Investigator,	
	Minority Supplement to Gene Mutations in Human Hypertension	
	(\$200,083)	2000 - 2003
6.	North Shore Long Island Jewish Health System, Long Island, NY,	
	Development of an Automated Bio-Repository (\$233,750) plus	
	\$240,00 equipment loan	2000 - 2001
7.		1999 - 2003
, •	8. Tech, Carilion Biomedical Institute and University of Virginia	1999 2002
	(\$5,000,000)	1999 – 2003
8	Tecan, Durham, NC, Robotic Automation of DNA Extraction	2000
٥.	(\$50,000) and loan of a Genesis Robot	1999 – 2000
9	Abbott, Clinical Trials of the FE-5000 Sample Processor (\$40,000)	
- •	plus \$400,000 equipment loan and a \$150,000 discount on the purchase	

	of the FE-500	1999
10.	Organon Teknika, Raleigh, NC, Robotic Automation of the MDA Coagulation Instrument (\$72,000)	1997 - 2000
11.	Helpmate Robotics Inc., Danbury, CT, Simulation of Robotic Fleets in Medical Centers (\$18,564)	1997
12.	Organon Teknika, Raleigh, NC, Robotic Automation of NASBA (\$52,080)	1997
13.	Acuity, Nashua, NH, Machine Vision for Medical Specimen Inspection,	
1 /	(\$13,500) Abbott Laboratories, Abbott Park, IL, Robotic Interface for the AxSym	1997
14.	Immunoassay Instrument (\$68,000)	1997
15.	NexStar Pharmaceuticals, Boulder, CO, Robotic Automation of Aptamer Production (\$100,000)	1997
16.	Organon Teknika, Raleigh, NC, Robotic Automation of NASBA QRS	1777
	Reader (\$22,400)	1997
17.	National Institutes of Health, RO1-DK39308, co-principal investigator Dopamine-1 Receptor Defect in Hypertension (\$430,000 subcontract to	
10	UVA)	1996 - 2001
18.	Acuity, Nashua, NH, Investigation of Data Matrix Code in the Clinical Laboratory, PO#94159GL (\$7,820)	1996
19.	Dupont, Canada, Clinical Evaluation of the Axial Separator System	1005 1006
20	(\$10,978) Coulter Corporation and Johnson and Johnson Corporation Automation	1995 - 1996
	of Central-Receiving and Processing (\$44,000 salary support)	1995 - 1996
21.	Zambon Group (Pharmaceutical Company), Dopamine Receptors in	1005 1006
22	Juxtaglomerular Cell, (\$64,000) Dupont, Canada, Axial Separation at Point-of-Care (\$8,556)	1995 – 1996 1995 – 1996
	Gilson Electronics Robotic Specimen Aliquotting (\$8,000)	1994 - 1996
	California Computer Research Inc., Mobile Robots in the Clinical	1,,,,
	Laboratory (\$8,000)	1994 - 1996
25.	Boehringer Mannheim, startup support for projects within Medical	
	Automation Research Center, Machine Vision in the Clinical Laboratory	
	I (\$24,980), Machine Vision II (\$25,527), Robotic Carryover Detection	1994 - 1996
26	(\$6825) Fogarty International Fellowship (\$29,000)	1994 - 1990 1992 - 1993
	National Institutes of Health, RO1-DK39308, co-principal investigator,	1992 - 1993
<i>4</i> / .	Dopamine 1 Receptor Defect in Hypertension (\$280,000 to UVA)	1991 - 1995
28	Hamilton Inc., Robotic Automation of Radioligand Binding (\$20,000)	1991 - 1992
	National Institutes of Health, NIH-R29-DK42185-01, Principal	
	Investigator, Renal Tubular Dopaminergic Mechanisms in	
	Hypertension (\$350,000)	1989 - 1995
30.	Baxter Laboratories, Alphafetoprotein (\$51,937)	1989 - 1990
31.	Kurume University, Japan, salary support for Postdoctoral Trainee	
	(Keizou Ohbu) (\$26,000)	1989 - 1990
	Hybritech, Alphafetoprotein (\$13,570)	1988 - 1989
33	Kurume University Japan salary support for Postdoctoral Trainee	

		(Shohei Kinoshita) (\$22,000)	1987 - 1989
		Hybritech, Creatine Kinase MB (\$13,000)	
	35.	National Institutes of Health, RO1-DK39308, co-principal investigator,	
		Dopamine - 1 Receptor Defect in Hypertension (\$325,000, \$191,000	1987 - 1990
	26	to UVA) Perkin Elmer, Robotic Automation of Clinical Laboratories (\$60,000,	1987 - 1990
	30.	equipment and services)	1986 - 1989
	37	Hybritech, Alphafetoprotein (\$13,975)	1986 – 1987
		National Institutes of Health, subcontract of NIH-HL-14380 P.I.:	1700 1707
	50.	Jean Robillard (\$10,000)	1986 - 1987
	39.	American Heart Association, subcontract of Hemodynamic and Hormonal	
		Mechanisms in Ureteral Obstruction, P.I.: Bob Chevalier (\$1872)	1986 - 1987
	40.	Roche Diagnostics, Investigation of Carcinoembryonic Antigen in	
		Nonmalignant Disease (\$6275)	1985
	41.	National Institutes of Health, co-principal investigator, RFA#	
		NIH-NHLBI-DHUD-94-G-I, Dopaminergic Control of Blood Pressure	
		(\$471,330)	1984 - 1989
		BRSG, University of Virginia #5,S07, RR05431,23 (\$9500)	1984 - 1985
		National Kidney Foundations, National Capital Area (\$12,950)	1983 - 1984
	44.	BRSG, Georgetown University (\$5600)	1983 – 1984
CI	DD	ENT TRAINEES:	
CU		David Mack, Doctoral Program, BioMedical Engineering Implementation	
	1.	of design technologies	2002 - present
	2.	Matt Wolfe, undergraduate, Civil Engineering, SmartHouse	2002 - present
		Craig Lorie, Electrical Engineering Ph.D. candidate	2003 – present
		Junichi Yatabe, M.D., Ph.D.	2003 - present
		Midori Sasaki, M.D., Ph.D.	2004 - present
PR		IOUS TRAINEES:	
	1.	, , , , , , , , , , , , , , , , , , , ,	
		School of Medicine, Kurume, Japan; trained as postdoctoral fellow in	1005 1000
	^	renal research	1987 - 1989
	2.	Keizou Ohbu, M.D., Ph.D., Pediatric Nephrologist Kurume University	
		School of Medicine, Kurume, Japan; trained as postdoctoral fellow in	1000 1001
	2	renal research Por dy Tymon University of Vincinia Commenter for Ph. D. in	1989 - 1991
	3.	Randy Turner, University of Virginia, Co-mentor for Ph.D. in Mechanical Engineering	1990 - 1996
	4.	Ikuyo Yamaguchi, M.D., Ph.D., Pediatric Nephrologist Kurume	1990 - 1990
	ᅻ.	University School of Medicine, Kurume, Japan	1991 - 1995
	5.	John Taylor, University of Virginia - Computer Science Project director	1771 1775
	٥.	for research machine vision in the Clinical Laboratory	1993 - 1994
	6.	Chris Estey, University of Virginia, Co-mentor for M.S., Ph.D. in	1// 1// 1
		Biomedical Engineering	1994 - 2003
	7.	Georg Hoffman, M.D., internist and lab automation specialist	1995 - 2001
		Bin Wu, University of Virginia Department of Computer Science	1995 - 1999

	Hironobu Sanada, MD, Ph.D., Fukushima Medical College	1995 -	
	John Canterbury, Undergraduate, Engineering major	1996 -	1997
11.	Jamie Sullivan, Undergraduate Engineering major at Carnegie Mellon University (summers)	1997 -	1000
12	Amit Kumar, Master Degree in Systems Engineering, Co-mentor on	1997 -	1777
12.	Mobile Robot Project	1997 -	1998
13	Kevin Bowman, Anna Lopez, Undergraduate Engineering major	1,,,,	1,,,0
	Optimization of Mobile Robot Delivery Project	1997 -	1998
14.	Anna Lopez, undergraduate, Engineering, optimization of Mobile Robot		
	Delivery project	1997 -	1998
15.	Sonya Munson, Undergraduate Computer Science Major, Design		
	and implementation of an automated centrifuge	1998 -	1999
16.	Hidetsuna Watanabe, M.D., Ph.D. Postdoctoral Fellow; Genes for Human		
	Hypertension	1999 -	
	Janakan Thiagarajay, undergraduate, Engineering	1999 -	
	Chikh Bengra, Ph.D., Fellow	2000 -	2003
19.	Elle Kovarikova, undergraduate, Computer Science, electronic		
• ^	automation	2000 -	
	Tim Reynolds, high school student, cryogenic shipping (summers)	2000 -	2002
21.	Danny Cohen, high school student, MARC website maintenance	2000	2002
22	improvement and development	2000 -	
	Sun Quach, high school student (summers), MARC website maintenance	2000 -	2002
23.	Christopher Mifflin, Undergraduate, (summers) Design and Implementation of Medical Automation Information Web site	2001 -	2002
24	Implementation of Medical Automation Information Web site Jonathan Axisa, Undergraduate, Design of a Lab Simulator Website	2001 -	2003
	Andrew Koert, Undergraduate, Mechanical Engineering Automated	2001	
4 3.	modeling of biorepository	2001	
26	Brian Cooley, graduate student, Computer Science, SmartHouse	2001	
	Sarah Silberblatt, undergraduate, Virginia Tech, Biology (summer)	2001	
	Emily Evans, graduate student, Computer Science, SmartHouse	2001	
_0.	data analysis	2001 -	2002
29.	Shota Sasaki, Doctoral Program, Internal Medicine	2001 -	
	James Wang, Ph.D. graduate student, BioMedical Engineering		
	Development of software/hardware algorithms for shared control		
	mobility aids	2001 -	2003
31.	Amit Naidu, graduate student, Computer Science, SmartHouse	2001 -	2002
32.	Joe Bosworth, Ph.D. Program, Electrical Engineering Computer vision		
	software development for automated for microscopy analysis	2001 -	2002
33.	Andrea Hallman, undergraduate, Computer Science, co-mentored		
	with Bill Holman (Sr. Engineer/MARC)	2001 -	
	Sarah Wood, UVA master's degree program, education	2001 -	2003
35.	Aaron Hullman, graduate student, Darden Graduate School of Business		
	and UVA School of Law (joint degree program), Hypogen formation	• • • •	• • • •
	and business plan	2001 -	2003
36.	Stuart Marshall, undergraduate student, Mechanical Engineering,	2002	2002
	automated modeling of biorepository	2002 -	2003

PUBLICATIONS IN REFEREED JOURNALS:

- 1. Colon AR, Felder RA, Ryan TM. Macroamylasemia. J Pediatr 96(1):64-66, January 1980.
- 2. <u>Felder RA</u>, Calcagno PL, Eisner GM, Jose PA. Ontogeny of myocardial adrenoceptors II. Alpha adrenoceptors. Pediatr Res 16(5):340-342, May 1982.
- 3. <u>Felder RA</u>, Pelayo JC, Calcagno PL, Eisner GM, Jose PA. Alpha-adrenoceptors in the developing kidney. Pediatr Res 17(2):177-180, February 1983.
- 4. <u>Felder RA</u>, Blecher MB, Eisner GM, Jose PA. Cortical tubular and glomerular dopamine receptors in the rat kidney. Am J Physiol (Renal Fluid Electrolyte Physiol 15) 246(5 Pt 2):F557-F568, May 1984.
- 5. <u>Felder RA</u>, Blecher N, Calcagno PL, Jose PA. Dopamine receptors in the proximal tubule of the rabbit. Am J Physiol (Renal Fluid Electrolyte Physiol 16) 247(3 Pt 2):F499-F505, September 1984.
- 6. Mifflin TE, Bruns DE, Wrotnowski U, Macmillan RH, Stallings RG, <u>Felder RA</u>, Herold DA. Univerity of Virginia case conference. Macroamylase, macro creatine kinase, and other macroenzymes. Clin Chem 31(10):1743-1748, October 1985.
- 7. Felder RA, Mifflin TE, Bastani B. An optimized method for measuring cyclosporin A with

- ¹²⁵I-labeled cyclosporin. Clin Chem 32(7):1378-1382, July 1986.
- 8. Jose PA. <u>Felder RA</u>, Holloway RR, Eisner GM. Dopamine receptors modulate sodium excretion in denervated kidney. Am J Physiol (Renal Fluid Electrolyte Physiol 19) 250(6 Pt 2):F1033-F1038, June 1986.
- 9. Cote TE, <u>Felder RA</u>, Kebabian JW, Sekura RD, Reisine T, Affolter HU. D-2 dopamine receptor-mediated inhibition of pro-opiomelanocortin synthesis in rat intermediate lobe: Abolition by pertussis toxin or activators of adenylate cyclase. J Biol Chem 261(10):4555-4561, April 1986.
- 10. Beaulieu M, <u>Felder RA</u>, Kebabian JW. D-2 dopaminergic agonists and adenosine 3', 5'-monophosphate directly regulate the synthesis of α-melanocyte-stimulating hormone-like peptides by cultured rat melanotrophs. Endocrinol 118(3):1032-1039, March 1986.
- 11. Nakamura KT, <u>Felder RA</u>, Jose PA, Robillard JE. Effects of dopamine in the renal vascular bed of fetal, newborn, and adult sheep. Am J Physiol (Regulatory Integrative Comp Physiol 21) 252(3 Pt 2):R490-R497, March 1987.
- 12. <u>Felder RA</u>, Macmillan RH, Bruns DE. Two monoclonal-based assays for carcinoembryonic antigen compared. Clin Chem 33(5):700-704, May 1987.
- 13. <u>Felder RA</u>, Nakamura KT, Robillard JE, Kanadjian M, Jose PA. Dopamine receptors in the developing sheep kidney. Pediatr Nephrol 2(1):156-162, January 1988.
- 14. Hughes JM, Ragsdale NV, <u>Felder RA</u>, Chevalier RL, King B, Carey RM. Diuresis and natriuresis during continuous dopamine-1 receptor stimulation. Hyperten Suppl 11(2 Pt 2):I169-I174, February 1988.
- 15. <u>Felder RA</u>, Seikaly MG, Eisner GM, Jose PA. Renal dopamine-1 defect in spontaneous hypertension. Contrib to Nephrol 67:71-74, 1988.
- 16. <u>Felder RA</u>, Jose PA. Dopamine-1 receptors in the rat kidneys identified with ¹²⁵I-Sch 23982. Am J Physiol (Renal Fluid Electrolyte Physiol 24) 255(5 Pt 2):F970-F976, November 1988.
- 17. Siragy HM, <u>Felder RA</u>, Howell NE, Chevalier RL, Peach MJ, Carey RM. Intrarenal dopamine-1 receptors control renal function. Trans Assoc Am Physicians 101:288-291, 1988.
- 18. Siragy HM, <u>Felder RA</u>, Howell NE, Chevalier RL, Peach MJ, Carey RM. Intrarenal dopamine acts at the dopamine-1 receptor to control renal function. J Hypertens Suppl 6(4):S479-S481, December 1988.
- 19. <u>Felder RA</u>, Holl RW, Martha P, Bauler G, Hellman P, Wills MR, Thorner MO. Influence of matrix on concentrations of somatotropin measured in serum with commercial immunoradiometric assays. Clin Chem 35(7):1423-1426, July 1989.

- 20. <u>Felder RA</u>, Garland DS. POMC biosynthesis in the intermediate lobe of the spontaneously hypertensive rats. Am J Hypertens 2(8):618-624, August 1989.
- 21. Siragy HM, <u>Felder RA</u>, Howell NL, Chevalier RL, Peach MJ, Carey RM. Evidence that intrarenal dopamine acts as a paracrine substance at the renal tubule. Am J Physiol (Renal Fluid Electrolyte Physiol 26) 257(3 Pt 2):F469-F477, September 1989.
- 22. Kinter M, Singh T, <u>Felder RA</u>. Quantitation of selective dopaminergic drugs in plasma by gas chromatography-mass spectrometry following solid-phase extraction. J Chromatog 496(1):201-208, November 1989.
- 23. Kinoshita S, Sidhu A, <u>Felder RA</u>. Defective dopamine-1 receptor adenylate cyclase coupling in the proximal convoluted tubule from the spontaneously hypertensive rat. J Clin Invest 84(6):1849-1856, December 1989.
- 24. Kinoshita S, Ohlstein EH, <u>Felder RA</u>. Dopamine-1 receptors in the rat proximal convoluted tubule: regulation by intrarenal dopamine. Am J Physiol (Renal Fluid Electrolyte Physiol 27) 258(4 Pt 2):F1068-F1074, April 1990.
- 25. Ragsdale NV, Lynd M, Chevalier RL, <u>Felder RA</u>, Peach MJ, Carey RM. Selective peripheral dopamine-1 receptor stimulation: Differential responses to sodium loading and depletion in humans. Hypertens 15(6 Pt 2):914-921, June 1990.
- 26. Sidhu A, <u>Felder RA</u>, Jose PA, Fishman PH. Comparison of the central and renal dopamine-1 receptor. Am J Hypertens 3(6 Pt 2):37S-39S, June 1990.
- 27. Carey RM, Siragy HM, Ragsdale NV, Howell NL, <u>Felder RA</u>, Peach MJ, Chevalier RL. Dopamine-1 and dopamine-2 mechanisms in the control of renal function. Am J Hypertens 3(6 Pt 2):59S-63S, June 1990.
- 28. <u>Felder RA</u>, Kinoshita S, Sidhu A, Ohbu K, Kaskel FJ. A renal dopamine-1 receptor defect in two genetic models of hypertension. Am J Hypertens 3(6 Pt 2):96S-99S, June 1990.
- 29. Siragy HM, <u>Felder RA</u>, Howell NL, Chevalier RL, Peach MJ, Carey RM. Evidence that dopamine-2 mechanisms control renal function. Am J Physiol (Renal Fluid Electrolyte Physiol 28) 259(5 Pt 2):F793-F800, November 1990.
- 30. <u>Felder RA</u>, Seikaly MG, Cody P, Eisner GM, Jose PA. Attenuated renal response to dopaminergic drugs in spontaneously hypertensive rats. Hypertens 15(6 Pt 1):560-569, June 1990.
- 31. Kinoshita S, <u>Felder R</u>. Ontogeny of D_{A1} receptor-adenylate cyclase coupling in proximal convoluted tubules. Am J Physiol (Renal Fluid Electrolyte Physiol) 259(6 Pt 2):F971-F976, December 1990.

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- 12. <u>Felder RA</u>. "Robotic Automation of HPLC Laboratories" in HPLC in the Pharmaceutical Industry, Vol 47. Fong GW, Lam SK (Eds), Marcel Dekker Inc., New York (Ch 9:185-210) 1991.
- 13. Jose PA, Martin GR, <u>Felder RA</u>. "Cardiovascular and Autonomic Influences on Blood Pressure" in Pediatric Hypertension. Loggie JMH (Ed), Blackwell Scientific Publications, London (Ch 3:33-51) 1992.
- 14. Jose PA, <u>Felder RA</u>. "Renal Nerves" in Pediatric Nephrology. Edelmann CM Jr (Ed), Little Brown and Co., Boston MA, 2nd Edition (Ch 12:297-325) 1992.
- 15. Jose PA, <u>Felder RA</u>, Monsma FJ Jr, Sibley DR, Mouradian MM. "Molecular Biology of Dopamine Receptors: An overview" in Advances in the Biosciences: Cardiovascular and Renal Actions of Dopamine. Pergamon Press, Oxford (88:51-61) 1993.
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- 17. <u>Felder RA.</u> "Overview and Challenges" in Handbook of Clinical Laboratory Automation and Robotics. Kost GJ (Ed), Wiley and Sons Publishers, New York, NY, Part I (Ch 1:3-29) 1996.
- 18. <u>Felder RA</u>. "Automation of Preanalytical Processing and Mobile Robotics" in Handbook of Clinical Laboratory Automation and Robotics. Kost GJ (Ed), Wiley and Sons Publishers, New York NY (Ch 12:252-282) 1996.
- 19. <u>Felder RA.</u> "Robotic Automation of Near-Patient Testing" in Handbook of Clinical Laboratory Automation and Robotics. Kost GJ (Ed), Wiley and Sons Publishers, New York, NY (Ch 24:596-619) 1996.
- 20. Jose PA, <u>Felder RA</u>, Eisner GM. "Regulation of D1 Receptor Function in Spontaneous Hypertension" in Catecholamines: Bridging Basic Science with Clinical Medicine. Goldstein D (Ed), Academic Press, San Diego CA (p525-528) 1997.
- 21. <u>Felder RA</u>. "The Distributed Laboratory: Point-of-Care Services with Core Laboratory Management" in Point of Care Testing. Hicks J, Price C (Eds), Clinical Chemistry Press, Washington DC (Ch 5:99-118) 1999.
- 22. Jose PA, Eisner GM, <u>Felder RA</u>. "Dopaminergic Mechanisms in the Development of Hypertension" in Handbook of Hypertension: Development of the Hypertensive Phenotype: Basic and Clinical Studies, Vol 19. Birkenhager WH, Reed JL (Eds), Elsevier Science BV, Amsterdam (Ch 1:1-44) 1999.

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INVITED ARTICLES:

- 1. Savory J, Bertholf RL, Boyd JC, Bruns DE, <u>Felder RA</u>, Lovell MA, Shipe JR, Wills MR, Czaban JD, Coffey KF, O'Connell KM. Advances in clinical chemistry over the past 25 years. Anal Chim Acta 180:99-135, 1986.
- 2. <u>Felder RA</u>. Lab researches robotics potential. Clin Chem News 12:28-30, 1986.
- 3. <u>Felder RA</u>, Boyd JC, Savory J. Robots in the clinical laboratory. Med Lab Practice 2:18-19, 1987.
- 4. <u>Felder RA</u>, Boyd JC, Savory J. Robotics are coming to the critical care laboratory. Canad Clin Lab 7:14, 1988.
- 5. <u>Felder RA</u>, Seikaly MG, Eisner GM, Jose PA. Renal dopamine-1 defect in spontaneous hypertension. Contrib Nephrol 67:71-74, 1988.
- 6. <u>Felder RA</u>, Boyd JC, Margrey KS, Martinez A, Vaughan DP, Savory J. Robots the mechanical medical technologist. Clin Chem Endocrinol Metab 7:7-21, 1988.
- 7. <u>Felder RA</u>, Boyd JC, Savory J, Margrey KS, Martinez A, Vaughan D. Robotics in the clinical laboratory. Clin Lab Med 8(4):699-711, December 1988.
- 8. <u>Felder RA</u>, Robillard JE, Eisner GM, Jose PA. Role of endogenous dopamine on sodium excretion. Sem Nephrol 9(1):91-93, March 1989.
- 9. <u>Felder RA</u>, Felder CC, Eisner GM, Jose, PA. The dopamine receptor in adult and maturing kidney. Am J Physiol (Renal Fluid Electrolyte Physiol 26) 257(3 Pt 2):F315-F327, September 1989.
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- 12. Carey RM, Siragy HM, <u>Felder RA</u>. Physiological modulation of renal function by the renal dopaminergic system. J Auton Pharmacol 10 Suppl 1:s47-s51, 1990.

- 13. Jose PA, <u>Felder RA</u>, Felder CC, Chan WY. Molecular biology of adrenergic and dopamine receptors and the study of developmental nephrology. Pediatr Nephrol 4(6):679-685, November 1990.
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- 17. <u>Felder RA</u>. Laboratory systems integration: robotics and automation. Ann Biol Clin (Paris) 49(5):298-300, 1991.
- 18. <u>Felder RA</u>. Recent advances in clinical laboratory robotics. Scientific Bavaria '92, 4th International Symposium: Progress in Laboratory Diagnostics, Schloss Elmau, Germany, Jp;ze; W. L;pse S (Eds), Urban & Vogel, Muncher, p109-133, October 1992.
- 19. <u>Felder R</u>, Turner R. Radioligand Binding Assays. Packard Instrument Company, Matrix Application Note, p1-5, July 1992.
- 20. Jose PA, Eisner GM, <u>Felder RA</u>. Dopaminergic defect in hypertension. Pediatr Nephrol 7(6):859-864, December 1993.
- 21. Herold CD, Holman JW, Andree K, <u>Felder RA</u>, Herold DA. Development and evaluation of a robotics-based system for glycoslyated hemoglobin analysis. Chemometrics and Intelligent Laboratory Systems: Lab Inform Man 21:189-197, 1993.
- 22. <u>Felder RA</u>. Robotic technology presents challenges and opportunities to laboratories. Chemometrics and Intelligent Laboratory Systems: Lab Inform Man 26(2):67-68, November 1994.
- 23. <u>Felder RA</u>. ICAR '94: Robot technology applied to the laboratory. Monitor/Laboratory Information Management 26:56-59, 1994.
- 24. <u>Felder RA</u>, Person NB. Front-End Systems: The Next Automation Wave. Advance for Administrators of the Laboratory 4(7):16-17, 20, 22-23, 26, July/August 1995.
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- 26. Yamaguchi I, Walk SF, Felder RA. Studying the dopaminergic system with transfected

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- 27. Turner R, Felder RA, Kealy M. Automation of the Polymerase Chain Reaction. Am Biotech Lab 13(12):50-51, November 1995.
- Jose PA, Felder RA. What we can learn from the selective manipulation of dopaminergic 28. receptors about the pathogenesis and treatment of hypertension. Curr Opin Nephr Hypertens 5(5):447-51, September 1996.
- 29. Felder RA. Laboratory Automation: Strategies and Possibilities. Clin Lab News (Part I) 22(3):10-11, March 1996.
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- 39. Estey CA, Jagger J, Felder RA. Studies show plastic specimen tubes viable, safe option. Advance (Cover story), 9(5):5-7, March 1997.
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- 43. Lamb DA, <u>Felder R</u>, McClellan D. As we see it. Prudent use of technology. Clin Lab Mgmt Rev 11(3):192-195, May/June 1997.
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- 45. Holman W, Turner R, <u>Felder RA</u>. Automating your existing clinical instruments. LAN 2(3):24-29, July 1997.
- 46. <u>Felder, RA</u>. TLA has arrived! LAN 2(3):30-31, July 1997.
- 47. <u>Felder RA</u>, Godolphin W, Estey C, Hoffmann G. LabAutomation'98: New developments in high-throughput screening and combinatorial chemistry. Am Lab 30(13):19-20, June 1998.
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- 53. Timoney CF, Beugelsdijk TJ, <u>Felder RA</u>. Eurolabautomation'98 at Oxford University. JALA 3(6):85-89, December 1998.
- 54. Timoney CF, <u>Felder RA</u>. Zymark: A pioneering company in laboratory automation. JALA 3(1):12-16, March 1998.
- 55. <u>Felder RA</u>. Automation: Survival Tools for the Hospital Laboratory in Proceedings of the Second International Bayer Diagnostics Laboratory Symposium. Balzac F (Ed), New York NY, p23-25, July 1998.
- 56. Timoney CF, Felder RA. Cepheid: Expanding the boundaries for practical applications of microinstrumentation and microfluidics. JALA 3(6):22-26, December 1998.

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- 59. <u>Felder RA</u>. Clinical laboratory automation comes of age: case histories abound at the LabAutomation '99 conference. American Clinical Laboratory, 18(7):6-7, 1999.
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- 70. Timoney CF, DiLorenzo ME, <u>Felder RA</u>. Research and technology for life. JALA 5(4):52-56, September 2000.
- 71. <u>Felder RA</u>. Review of LabAutomation 2000, miniaturization, high-speed analysis, and POC data management. Am Clin Lab 19(9):14-15, 2000.
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- 73. Timoney CF, Felder RA. Creating practical solutions. JALA 5(6):44-45, December 2000.

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- 75. Jose PA, Eisner GM, Felder RA. Renal dopamine and sodium homeostasis. Curr Hypertens Rep 2(2):174-183, April 2000.
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- 80. DiLorenzo ME, Timoney CF, <u>Felder RA</u>. LabAutomation 2001, Part III: New approaches to glucose measurement and point-of-care connectivity and standards. Am Clin Lab 20(7):29-30, August 2001.
- 81. DiLorenzo ME, Timoney CF, <u>Felder RA</u>. LabAutomation 2001, Mining genomic data, venture capital considerations, micrototal analysis (chip) systems, and categorizing proteins. Am Biotech Lab, p18-20, August 2001.
- 82. DiLorenzo ME, Timoney CF, <u>Felder RA</u>. LabAutomation 2001, Part IV: Mass spectroscopy as sensitive detector, protein function in disease, and the soul of the robot. Am Clin Lab 20(8):21-23, September 2001.
- 83. <u>Felder RA</u>. EuroLabAutomation 2001, conference and exhibition review. JALA 7(1):37-51, March 2002.
- 84. Kempner ME, <u>Felder RA</u>. LabAutomation2002: Productive technologies for the new millennium. JALA 7(2):38-49, April/May 2002.
- 85. Hoffmann G, Weber-Matthiesen K, <u>Felder R</u>. Automation der Praanalytik Begegnung zweier Welten. Labor Man Aktuell p8-13, June 2002.
- 86. Kempner M, <u>Felder R</u>. LabAutomation 2002: Productive technologies for the new millennium Clinical laboratory automation case studies of successful and profitable installations, Part I. Am Clin Lab 21(3):8-9, April 2002.
- 88. Kempner M, <u>Felder R</u>. LabAutomation 2002: Productive technologies for the new millennium Clinical laboratory automation case studies of successful and profitable installations Part 2. Am Clin Lab, 21(3):4, 8, May 2002.

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- 89. Kempner ME, <u>Felder RA</u>. LabAutomation 2002: Productive technologies for the new millennium distributed laboratories and point-of-care Part 2. Am Clin Lab 21(4):4-8, May 2002.
- 90. Kempner M, <u>Felder R</u>. LabAutomation 2002: Productive technologies for the new millennium Clinical laboratory automation case studies of successful and profitable installations Part 3. Proteomics: Diagnostics and Specimen Biorepositories. Am Genom/Proteom Tech 2(3):6-8 May/June 2002.
- 91. Kempner ME, <u>Felder RA</u>. LabAutomation 2002: Internet access to health data: elder-care, home-care, and self-care programs Part 4. Am Clin Lab 21(5):8-12, June 2002.
- 92. Kempner M, <u>Felder RA</u>. LabAutomation 2002: Productive technologies for the new millennium Scientific research and challenges in the new millennium. Part 5. Am Clin Lab 34(15):4-6, July 2002.
- 93. Felder RA. Planning Tools for Lab Automation. Advance, January 2003.
- 94. Felder RA. Push for patient safety is nudge for automation. CAP Today, 17(5); 33-34, 2003.
- 95. Alwan M, Kell SW, <u>Felder RA</u>. In-Home Health Monitoring: Today and in the Near Future. CSA J 20:21-22, September 2003.
- 96. <u>Felder RA</u>, Jose PA. Discoveries of Polygenic Testing. Adv News Admin Lab, February 2004.
- 97. <u>Felder RA</u>, Gupta UC. Farewell to Flat Biology. BIOforum Europe 5(9):42, 44-45, August 2005.
- 98. Alwan M, Leachtenauer J, Dalal S, Kell S, Turner B, Mack D, <u>Felder RA</u>. Validation of Rule-Based Inference of Selected Independent ADLs. Accepted for publication in Journal of Telemedicine and E-Health, 2005.
- 99. Alwan M, Dalal S, Mack D, Kell S, Turner B, Leachtenauer J, Felder RA. Impact of Monitoring Technology in Assisted Living: Outcome Pilot. Accepted for publication in IEEE Transactions on Information Technology in Medicine and Biology, 2005.
- 100. Gupta U, Felder RA. Cell Culture, the Achilles Heel of HTS? Screening Trends in Drug Discovery 6(3):17-19, September 2005.

INVITED LECTURES:

- 1. "New Trends in Tumor Markers" presented to the Pennsylvania Chapter of the Society for American Pathologists, Hershey PA, 1986.
- 2. "Tumor Markers" presented to the Virginia Chapter of the American Society for Medical Technologists, Williamsburg VA, 1986.

- 3. "Carcinoembryonic Antigen and Other Clinically Useful Tumor Markers" presented to the Annual Meeting for the American Society for Medical Technologists, Baltimore MD, 1986.
- 4. "Robotics in the Clinical Laboratory" presented to the Capital Section of the American Association for Clinical Chemistry, Columbia MD, 1987.
- 5. "Anabolic Steroids" presented to the Capital Section of the American Association for Clinical Chemistry, Fredericksburg VA, 1987.
- 6. "Novel Screening Tests for Anabolic Steroids" presented to the 1st International Congress on Drugs in Competitive Athletics, Brioni, Yugoslavia, 1988.
- 7. "Renal Dopamine and Essential Hypertension" presented to Kurume University Department of Pediatrics, Kurume, Japan, 1988.
- 8. "Data Management in Alphafetoprotein Screening" presented as a workshop to the National Meeting of the American Association of Clinical Chemistry, New Orleans LA, 1988.
- 9. "Development of Clinical Laboratory Robots" presented to the Mayo Clinic laboratory faculty, The Mayo Clinic, Rochester MN, 1988.
- 10. "The Renal Dopamine Receptor" presented to the 2nd International Meeting on Peripheral Dopamine, Melbourne, Australia, 1988.
- 11. "The State of the Art in Clinical Laboratory Robotics" presented to the Third International Congress on Automation and New Technology in the Clinical Laboratory, Kobe, Japan, 1988.
- 12. "State of the Art in Clinical Laboratory Robotics" symposium chairman and speaker at the 41st National Meeting of the American Association for Clinical Chemistry, Atlanta GA, 1989.
- 13. "Robotics Workshop" workshop organizer at the 41st National Meeting of the American Association for Clinical Chemistry, Atlanta GA, 1989.
- 14. "Implementing Robots in the Clinical Laboratory" presented to Clinical Grand Rounds at the University of Nebraska, Omaha NE, 1989.
- 15. "State of the Art in Clinical Laboratory Robotics" presented to Clinical Grand Rounds at Johns Hopkins University Hospital, Baltimore MD, 1989.
- 16. "New Advances in Clinical Laboratory Robotics" presented to the Midwestern Section of AACC Annual Meeting, Indianapolis IN, 1989.
- 17. "Medical Robotics" presented to the International Symposium on Laboratory Robotics, Boston MA, 1989.

- 18. "Dopamine and Hypertension" presented to clinical rounds at Toronto General Hospital, Toronto, Canada, 1990.
- 19. "Clinical Use of Robotics" presented to citywide rounds, Toronto General Hospital and Mt. Sinai Hospital, Toronto, Canada, 1990.
- 20. "Opportunities in Medical Robotics" presented to The Hamilton Company, Reno NV, 1990.
- 21. "Robotic Automation in Medical Laboratories" presented as opening lecture by Symposium Chairman, 23rd Annual Oak Ridge Conference, Tampa FL, 1990.
- 22. "Defective Regulation of Renal DA-1 Receptors in Hypertension" presented to the satellite meeting of the XIth International Conference of Pharmacology; significance of the peripheral dopaminergic system in cardiovascular and renal function, Essen, Germany, 1990.
- 23. "Renal Dopamine" presented to the Department of Pharmacology, University of Lausanne, Lausanne, Switzerland, 1990.
- 24. "Hypertension and the Renal Adrenergic System" presented to the University of Groningen, The Netherlands, 1990.
- 25. "Clinical Laboratory Robotics in the 1990's" presented to the International Symposium on Laboratory Automation and Robotics, Boston MA, 1990.
- 26. "Robotics: The Science, The Art, and The Engineering" presented to the University of Wisconsin Lab Medicine Conference, Madison WI, 1990.
- 27. "Laboratory Robotics: What's Available? What Does the Future Hold?" presented to the American Association for Clinical Chemistry Milwaukee/Wisconsin Chapter, Madison WI, 1990.
- 28. "Medical Robotics" presented to the Sixth European Oak Ridge Conference, Advanced Technology for the Clinical Laboratory and Biotechnology, Milan, Italy, 1990.
- 29. "Renal DA-1 Receptor Defect in Hypertension" presented as part of the Developmental Nephrology Symposium at the American Society for Nephrology meeting, Washington DC, 1990.
- 30. "Robotics in Medicine" presented to medical grand rounds at the Karolinska Institute, Stockholm, Sweden, 1991.
- 31. "The Role of Robotics in Central Laboratory Processing" presented to Scientific Bavaria, Garmish-Partenkirchen, Germany, 1992.
- 32. "Clinical Laboratory Robotics" presented as a plenary lecture to the Second International Symposium on Automation, Robotics, and Artificial Intelligence applied to Analytical

- Chemistry and the 2nd International Conference on Robotics in Laboratory Medicine, Montreux, Switzerland, 1992.
- 33. "Robotics and Cost Containment in Health Care" presented to the Third International Symposium of Automation Robotics, and Artificial Intelligence as applied to Analytical Chemistry and Laboratory Medicine, Montreux, Switzerland, 1993.
- 34. "Robots dans les laboratories de clinique" presented in French to the University de Lausanne, Lausanne, Switzerland, 1993.
- 35. "Automation in Molecular Biology" presented to EuroLab, Nice, France, 1993.
- 36. "Robotics in Laboratory Medicine: The 1990s and Beyond" presented at the New Technologies Symposium at the National AACC Meeting, New York City NY, 1993.
- 37. "The Evolution of Clinical Laboratories" presented as a plenary lecture to the International Conference on Laboratory Automation, San Diego CA, 1994.
- 38. "Automation in Near Patient Testing" presented an overview lecture as a session moderator of Care Conference Philadelphia PA, 1994.
- 39. "Studying the Dopaminergic System with Transfected Receptors" presented to the Fifth International Conference on Peripheral Dopamine, Kyoto, Japan, 1994.
- 40. "Dopamine Receptors in Hypertension" presented in Japanese, Kurume University School of Medicine, Kurume, Japan, 1994.
- 41. "Clinical Laboratory Robotics in the Next Century" presented at the International Conference on Automation and Robotics, Montreux, Switzerland, 1995.
- 42. "Clinical Laboratory Robotics: A Matter of Survival" presented at the National Meeting of the American Association for Clinical Chemistry, Anaheim CA, 1995.
- 43. "Robotics and Their Role in the Modern Clinical Laboratory" presented at the Western Biotech Conference (31st Annual American Chemical Society Meeting), San Diego CA, 1995.
- 44. "Automation of Near Patient Testing" presented at the Sixth International Congress on Automation and New Technology in Clinical Laboratory, Barcelona, Spain, 1995.
- 45. "Transfected Dopamine Receptors as a Model for Receptor-Receptor Interaction" presented at the Asian Conference on Pediatric Nephrology, Manilla, Philippines, 1996.
- 46. "Clinical Laboratory Automation" presented at the Eastern Clinical Laboratory Management Association Conference, Ashville NC, 1996.
- 47. "Automation: A Matter of Survival in Clinical Laboratories" presented to the Manitoba Society

- for Clinical Chemistry as the Annual Award Lecture, Winnipeg, Manitoba, Canada, 1996.
- 48. "Automation in the Central Laboratory" presented as a plenary lecture to the Coulter South American Conference, Miami FL, 1996.
- 49. "Automation of Point-of-Care Testing" presented as the Ciba-Corning Lecture at the American Association for Clinical Chemistry Annual Meeting, Chicago IL, 1996.
- 50. "Automation of Near-Patient Testing" presented at the Clinical Laboratory Management Association Annual Conference and Exhibition, Denver CO, 1996.
- 51. "Central Laboratory Automation" presented at the Clinical Laboratory Management Association Annual Conference and Exhibition, Denver CO, 1996.
- 52. "Will Point-of-Care Testing Replace Total Laboratory Automation?" presented at the Clinical Laboratory Management Association Northeast Region Conference and Exhibition, Boston MA, 1997.
- 53. "Automating Laboratory Medicine" presented to the Department of Pathology, Harvard Medical School, Boston MA, 1997.
- 54. "Automating Your Clinical Laboratory for Fun and Profit" presented as a four-hour workshop to the International Conference on Automation and Robotics, Montreux, Switzerland, 1997.
- 55. "Recent Advances in Hematology Automation" presented to a satellite symposium of the International Society for Laboratory Hematology, Brugge, Belgium, 1997.
- 56. "Automation in Thrombosis and Hemostasis Testing" presented to a satellite symposium of the International Society of Thrombosis and Hemostasis, Florence, Italy, 1997.
- 57. "Total Laboratory vs. Point-of-Care Automation" presented as a series of two lectures to Boehringer Mannheim Corporation, Indianapolis IN, 1997.
- 58. "Features, Functionality, and Market Trends for Hardware and Software in Robotics and Automation" presented to an "Edutrac" session at the annual meeting of the American Association for Clinical Chemistry, Atlanta GA, 1997.
- 59. "Technology and Automation" presented to the Association for Pathology Chairs Annual Meeting, Lake Tahoe CA, 1997.
- 60. "Case Histories of Successful Laboratory Automation Installations" organizer and chairman of breakout session at the Clinical Laboratory Management Association Conference in Toronto, Canada, 1997.
- 61. "A European Perspective on Laboratory Reorganization" presented to the Norwegian Society for Clinical Chemistry, Oslo, Norway, 1997.

- 62. "Automation from Point-of-Care to Central Laboratory" presented as the plenary lecture to the annual meeting of Computers in Clinical Laboratories, Lugano, Switzerland, 1997.
- 63. "Laboratory Robotics and Automation" presented to Johns Hopkins University Department of Pathology, Baltimore MD, 1997.
- 64. "Clinical Laboratory Automation in the Next Century: From Process Control to Point-of-Care" presented in the Clinical Overview Session at the LabAutomation conference, San Diego CA, 1998.
- 65. "Robotics: Benefits & Difficulties; Successful & Failure Cases" and "Technology and Trends in the Creation of Automated Centralized and Distributed Laboratories" presented to both the Department of Health, Hospital Authorities, and Queen Elizabeth Hospitals in Hong Kong, China, 1998.
- 66. "Present Status of Laboratory Robotization" presented to the University of Leiden Grand Opening of the First Clinical Laboratory Automation System (CLAS) in Europe, Leiden, The Netherlands, 1998.
- 67. "Expanding the Automated Laboratory: from Mobile Robots to Point-of-Care" presented to the first Cherry Blossom Symposium on Clinical Laboratory Automation and Robotics, Kochi, Japan, 1998.
- 68. "Robotics and the Pediatric Patient" presented to Pediatric Grand Rounds, Georgetown University Hospital, Washington DC, 1998.
- 69. "From Mobile Robots to JAVA, Modern Methods for Analytical Workcell Integration" presented to the Automation and New Technologies Conference, Santiago Di Compostella, Spain, 1998.
- 70. "Automation for Small Laboratories" presented to the American Board of Bioanalysis Annual Conference, Charleston SC, 1998.
- 71. "Automation: Survival Tools for the Hospital Laboratory" presented to the Second International Bayer Diagnostics Laboratory Testing Symposium, New York City NY, 1998.
- 72. "Clinical Laboratories: Automation in the Next Century" presented as the plenary lecture to the International Conference on Laboratory Medicine, Laboratory Medicine of the Year 2000: Opening Our Minds to Changes, Padova, Italy, 1998.
- 73. "Optimal Modular Workcell Designs for Maximizing Laboratory Profits" presented to the Eighth Asian-Pacific Congress of Clinical Biochemistry, Kuala Lumpur, Malaysia, 1998.
- 74. "Automation Strategies for Medium Sized Hospitals" presented to the Beckman Automation Symposium, Singapore, 1998.

- 75. "Challenges Associated with Automating Laboratories" presented as moderator of the discussion session for the First Roche Users Group Meeting, New York NY, 1998.
- "Mobile Robot Simulation of Clinical Laboratory Deliveries" presented at proceedings of 76. Winter Simulation Conference, 1998.
- 76. "State-of-the-Art in Laboratory Automation" presented as Co-Chairman lecture to the Symposium on Consolidated and Integrated Laboratory Systems – General Aspects of Automation, Users Reports, Medica Conference, Dusseldorf, Germany, 1999.
- "Automation Concepts of Point-of-Care Testing (POCT)" presented to the European 77. Confederation of Laboratory Medicine Symposium, Dusseldorf, Germany, 1998.
- "Robotic Opportunities in Molecular Biology and Genetics" presented to the Annual Tecan 78. Sales Meeting, Pointe Verde Resort, Jacksonville Beach FL, 1999.
- "Short Course on the Latest Developments in Clinical Laboratory Automation" presented as a 79. short course to LabAutomation99, San Diego CA, 1999.
- "From Phlebotomy to Therapy: New Developments in Automated Laboratory Medicine" 80. presented at LabAutomation99, San Diego CA, 1999.
- 81. "Regulation of Dopamine Receptor Subtypes in Human Essential Hypertension" presented to the American Society for Pharmacology and Experimental Therapeutics, Washington DC, 1999.
- 82. "Automation and Robotics: Survival Tools for Medicine" presented to Health Tech'99, Baltimore MD, 1999.
- 83. "Modern Trends in Automated Laboratory Design: The Distributed Laboratory Model" presented as Session Chairman, Robotics, Automation and the Virtual Laboratory, IFCC WorldLab, Florence, Italy, 1999.
- "The Effect of Global Laboratory Automation Standardization on Laboratory Analytical 84. Instrument Choice" presented as invited Plenary Lectures to the Italian Society of Laboratory Medicine, Padua, and Genoa Italy, 1999.
- 85. "Automation and Robotics In Hospital and Home Care: Exciting Opportunities for Bioengineers" presented as a Plenary Lecture to the European Medical and Biological Engineering Conference (EMBEC99), Vienna, Austria, 1999.
- "Centralized Laboratories and Distributed Testing: An Automation Concept for the Future" 86. presented as an Invited Lecture to Medica MediLab (IFCC, ECLM), Dusseldorf, Italy, 1999.
- "The Latest Robotic Technologies for the Automated Laboratory" presented as the Chairman's 87.

- Lecture of the ALA Satellite Symposium at Medica, Dusseldorf, Italy, 1999.
- 88. "Error Reduction and Process Improvement: Medical Automation Research Center" presented to Grand Rounds, Johns Hopkins Medical Center, Baltimore MD, 2000.
- 89. "Optimizing Laboratory Efficiency: Workstation, Modular or Total Lab Automation" presented as the Plenary Lecture to the Italian Society for Laboratory Medicine, Second Congress on Lab Automation and Medical Decision Making, Villa Tacchi Congress Center, Villalta Gasso Padovano, 2000.
- 90. "Automation, Robotics, and the New Medicine" presented to Virginia American Cardiology Conference, Charlottesville VA, April 2001.
- 91. "Adaptive Mobility Aids for the Elderly" presented to the SPIE Conference on Complex Adaptive Structures, Hutchinson Island FL, June 2001.
- 92. "A Worldwide Perspective on the State of the Art in Clinical Laboratory Automation" presented to the Northern Italian Society for Clinical Chemistry, Italy, September 2001.
- 93. GRK4 Mutations and Essential Hypertension" presented to Pathology Seminar Lecture Series, University of Virginia, Charlottesville VA, September 2001.
- 94. "Dopamine and Hypertension" presented to ASN/ISN World Congress of Nephrology, San Francisco CA, October 2001.
- 95. "Connecting Laboratories to the Future: Opportunities and Obstacles" presented to 19th Annual Lab Institute Program sponsored by Washington G-2 Reports, Arlington VA, October 2001.
- 96. "Evaluation of the FE500 Pre-Analytical Processor" presented at EuroLabAutomation2001, London, UK, October 2001.
- 97. "Cost Containment and Error Reduction Through the Use of Laboratory Robots" presented to Pathology Department at Dartmouth-Hitchcock Medical Center, Lebanon NH, November 2001.
- 98. "Automating Clinical Pathology" presented to Clinical Pathology Lecture Series, University of Virginia, Charlottesville VA, November 2001.
- 99. "Choosing the Right Automation for Your Laboratory" presented to Alliance Laboratory Services, Cincinnati OH, January 2002.
- 100. "Clinical Laboratory Automation and Robotics" presented to the Clinical Pathology Lecture Series, University of Virginia, Charlottesville VA, January 2002.
- 101. "Clinical Trials of an Automated Pre-Analytical Processor" presented to Clinical Track Series of LabAutomation20002, Association for Laboratory Automation, Palm Springs CA, January 2002.

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- 102. "Automation, Robotics, and the New Medicine" presented to Physicians Forum, Carilion Biomedical Institute, Roanoke VA, February 2002.
- 103. "The Impact of Automation on Medical Laboratories and Hospitals: Predictions for the Future" presented to Third Cherry Blossom Symposium, Japan, April 2002.
- 104. "Medical Automation Research Center and the Development of New Technologies" presented to Physicians Forum at Carilion Biomedical Institute, Roanoke VA, May 2002.
- 105. "An Assistive Robotic Agent for Pedestrian Mobility" presented to Virginia Commonwealth University Robotics in Medicine conference, Richmond VA, May 2002.
- 106. "GRK4 Mutations and Essential Hypertension: from Laboratory to Bedside" presented to CardioVascular Research Council Retreat, University of Virginia, Wintergreen VA, May 2002.
- 107. "Genes that Impact Salt Sensitivity in Hypertensives: From Research to Clinical Practice" presented Eighth International Conference on Peripheral Dopamine: Dopamine Why Signal in all Organs, Stockholm, Sweden, June 2002.
- 108. "Medical Automation Opportunities and Pitfalls" presented to McKesson Automation, Pittsburgh PA, July 2002.
- 109. "Medical Automation a Technologically Enhanced Work Environment to Reduce the Burden of Care on Nursing Staff and a Solution to the Health Care Cost Crisis" presented to American Academy of Nursing Using Innovative Technology to Enhance Patient Care Delivery, Washington D.C., July 2002.
- 110. "A New Paradigm for the Diagnosis and Treatment of Hypertension: GRK4 Regulation of Sodium Excretion" presented to Scios Inc. in Sunnyvale CA, July 2002.
- 111. "Medical Automation A Technologically Enhanced Work Environment as a Solution to the Health Care Cost Crisis" presented as a plenary lecture to the Washington G-2 Reports conference, Washington DC, July 2002.
- 112. "Using Innovative Technology to Enhance Patient Care Delivery" plenary lecture to National Academy of Nursing, Washington DC, July 2002.
- 113. "Qualita et Automazione" presented in Italian to the Regional Cose di Aggiornamento in Cagliari, Italy, October 2002.
- 114. "Un Nuovo Modello di Laboratorio ed Automatzione" presented in Italian to the Regional Corso di Aggiornamento in Nuoro, Italy, October 2002.
- 115. "Storia ed Evoluzione dell Information Technology in Laboratorio" presented as a plenary lecture in Italian to the regional meeting of the Societa Italiana di Biochimica Clinica e

- Biologica Moleculare Clinica, Villa Romananazzi-Carducci, Bari, Italy, October 2002.
- 116. "The Prevailing Lab Automation Models in the World" presented as a plenary lecture in Italian to the annual Societa Italiana di Biochimica Clinica e Biologia Moleculare Clinica conference in Montecatini Terme, Italy, October 2002.
- "Storia ed Evoluzione Dell Information Tecnologia en Laboratorio" presented as the plenary 117. lecture in Italian to the Italian Societa Italiana de Medicina de Laboratorie, Villa Tacchi, Villalta, Gazzo Padova, Italy, October 2002.
- "Dopaminergic Defect in Essential Hypertension" presented at seminar at World Congress of 118. Nephrology, San Francisco CA, October 2002.
- 119. "Lab Automatzione e Sistemi Esperti;" Azienda Ospedaliera, Desenzano Del Garda, Italia, presented in Italian, October 2003.
- 120. "Informatica ed Automazione, Nuove Opportunita ed Esperienze nel Laboratorio Clinico" Hotel Crece Di Malta, Montecatini, Italia, presented in Italian, October 2003.
- 121. "Lab Automatzione e Sistemi Esperti" Centro Congressi Torre Cambiaso, Genova, Italia, presented in Italian, October 2003.
- 122. "Lab Automatzione e Software Open Source", Hotel Royal, Torino, Italia, presented in Italian, October 2003.
- "Laboratory Reporting for the Future: Linking Autoverification to the Electronic Medical 123. Record" presented at AACC Laboratory Automation 2003: Customizing Solutions for Your Institution, San Francisco CA, November 2003.
- "The Future of Coagulation Point-of-Care Testing and Data Connectivity" presented at the 124. Southeast and North Carolina Sections of the AACC: Point-of-Care Testing (POCT) Symposium – Coagulation and Connectivity, Charleston SC, November 2003.
- "Technology Available in the Field for Rapid Adoption" presented to American Academy of 125. Nursing: Technology Enabled Environment, University of Virginia, Charlottesville VA, February 2004.
- 126. "Simulation and Efficiency Evaluation of the Armed Forces Institute of Pathology Pre-Analytical Process" presented to the Armed Forces Institute of Pathology (AFIP), Washington DC, February 2004.
- 126. "State of-the-art of Clinical Automation" presented at the Association of Clinical Biochemists Regional Scientific meeting, Calderdale Royal Hospital, Halifax, United Kingdom, March 2004.
- 127. "The Role of the Laboratory in Medical Process" presented at the Association of Clinical

- Biochemists Regional Scientific meeting, Calderdale Royal Hospital, Halifax, United Kingdom, March 2004.
- 128. "Positive Patient Identification and Specimen Tracking: From Sample Collection to Specimen Storage" presented at AACC 2004 Amsterdam, Laboratory Automation: Smart Strategies for Success!, The Netherlands, March 2004.
- 129. "Wellness and Health Monitoring: Profitable Opportunities" presented to Wharton Business School, Philadelphia PA, April 2004.
- 130. "Present Status of TLA Laboratory Automation in the USA and Europe" presented to Cherry Blossom Symposium, Tokyo, Japan, April 2004.
- 131. "A Translational Checklist: Building Value for your Cardiovascular Research Ideas" presented to Cardiovascular Research Center Faculty Retreat 2004, Wintergreen VA, June 2004.
- 132. "Healthcare in the Future: Passive Smart House Monitoring Coupled with Genetic and Proteomic Profiling for Disease Detection and Management" presented to Healthcare Unbound Conference and Exhibition 2004 for The Center for Business Innovation (TCBI), Cambridge MA, July 2004.
- 133. "Smart Homes and Smart Phones: Connecting Consumers to Create Healthcare Unbound" workshop presented to Healthcare Unbound Conference and Exhibition 2004 for The Center for Business Innovation (TCBI), Cambridge MA, July 2004.
- 134. "Laboratory Screening for Genetic Variants that Contribute to Hypertension and/or Salt Sensitivity: From Genotypic Stratification to Pharmacogenomics" lecture presented to AACC Symposium 2004, Los Angeles CA, July 2004.
- 135. "Technology Strategies to Improve Nursing Efficiency" lecture presented to the Workforce Study of the American Academy of Nursing, Los Angeles CA, August 2004.
- 135. "A Molecular Diagnostic Test for Predicting Essential Hypertension" lecture presented to Pathology Department Retreat, University of Virginia, Wintergreen Resort, Wintergreen VA, September 2004.
- 136. "Pre-Analytical Automation Systems" lecture presented to CAP '04 (College of American Pathologists), Phoenix AZ, September 2004.
- 137. "Microcarrier Based Three Dimensional Cell Culture: A Novel Paradigm for In-Vivo-Like Cell Quality" lecture presented to American Type Culture Collection (ATCC), Manassas VA, September 2004.
- 138. "Health Monitoring Technologies for an Aging Population" lecture presented to Philips Medical Systems, Boston MA, October 2004.

- 139. "The Automated Clinical Laboratory as a Team Player in the Automated Hospital" lecture presented to APIII 2004 Conference Advancing Practice, Instruction and Innovation through Informatics, Pittsburgh PA, October 2004.
- 140. "The Renal Dopaminergic System and Hypertension" lecture workshop presented at 58th Annual Fall Conference of the Council for High Blood Pressure Research in association with the Council on the Kidney in Cardiovascular Disease of the American Heart Association (AHA), Chicago IL, October 2004.
- 141. "The Diagnostic Continuum from Predictive Genomics and Home Wellness Monitoring" lecture presented at AACC Lab 2007 Conference, Chicago IL, October 2004.
- 142. "Genetic Testing to Predict Hypertension and Salt Sensitivity: A Personal Incentive to Adopt a Heart Healthy Lifestyle" lecture presented to the AACC Chicago Section of the AACC Lab 2007 Conference, Chicago IL, October 2004.
- 143. "Maximizing Laboratory Efficiencies Using Automation" lecture presented AACC Laboratory Automation 2004: Optimizing Strategies for Success, Atlanta GA, November 2004.
- 144. "The Future of Healthcare Technology: The Practical Edge" lecture presented at TETHICS Conference, Washington DC, November 2004.
- 145. "Ubiquitous HealthCare: eCare in the Home and in the Medical Practice" lecture presented at TETHIC Conference, Washington DC, November 2004.
- 146. "Automation of Molecular Diagnostics: Flexible vs. Fixed Automation Approaches" lecture presented to Digene Corporation, Gaithersburg MD, December 2004.
- 147. "The Eldercare Health Monitoring Technology Program at UVA" lecture presented to Good Samaratian Society Eldercare Housing and Services, Sioux Falls SD, December 2004.
- 147. "New Developments in 3-Dimensional Cell Culture Technology for High Content Screening and Biopharmaceutical Production" lecture presented to breakfast seminar at Lab Automation 2005, San Jose CA, February 2005.
- 148. "Genetic Testing to Predict Hypertension and Salt Sensitivity: A Means to Induce Patients to Adopt a Heart Healthy Lifestyle?" presented to Grand Rounds, Pathology Department at Johns Hopkins Medical Center, Baltimore MD, February 2005.
- 149. "New Telehealth Paradigms for in Home Diagnostics and Eldercare" presented to Wharton Business School, Philadelphia PA, February 2005.
- 150. "Expanding the Clinical Laboratory Market into the Home" presented to Lab InfoTech Summit 2005, Las Vegas NV, March 2005.
- 151. "What Can We Expect from Fourth Generation Laboratory Automation Systems?" presented to

- the AACC Laboratory Automation conference Advanced Tools for Improving the Practice of Medicine, Amsterdam, The Netherlands, March 2005.
- 152. "Strategic Licensing Achieving Mutual Benefits" presented to Charlottesville Venture Group monthly breakfast meeting, Darden Business School, University of Virginia, Charlottesville VA, March 2005.
- 153. "A Molecular Diagnostic Test of Hypertension and Salt Sensitivity" presented to ARUP Laboratories, Salt Lake City UT, March 2005.
- 154. "Using SNPs Associated with Hypertension and Salt Sensitivity as a Basis for Predictive Diagnostics" presented to Quest Diagnostics Nichols Institute, San Juan Capistrano CA, March 2005.
- 155. "The Positive Impact of Darden Business School on Translational Research at UVA" presented to the Darden Business School Reunion Forums 2005, Darden Business School, University of Virginia, Charlottesville, VA, April 2005.
- 156. "Update on Home-Based Medical Diagnostics" presented at Tech Tease Conference via Creative Realities, Boston MA, May 2005.
- 157. "The Role of Caveolin-1 and GRK4 in Hypertension and Salt Sensitivity" presented at the CVRC (Cardiovascular Research Center) Retreat Conference, Wintergreen Resort, Wintergreen, VA, June 2005.
- 158. "The Diagnostic Continuum from Predictive Genomics and Home Wellness Monitoring" presented at HDMA's Distribution Management Conference, Orlando FL, June 2005.
- 159. "Smart Homes: Remote Monitoring for Home-Based Caregivers" presented to Cerner Nursing Informatics Symposium, Kansas City, MO, August 2005.
- 160. "Using Automated Microcarrier-Based Cell Culture to Improve Human Cell Phenotype" presented to Second Annual Cambridge HealthTech Institute's Tissue Models for Therapeutics, Cambridge, MA, August 2005.
- 161. "Engineering a Functional High-Throughput Tissue Screening System" Panel of Experts for Second Annual Cambridge HealthTech Institute's Tissue Models for Therapeutics, Cambridge, MA, August 2005.

ABSTRACTS:

- 1. Holman W, Turner R, <u>Felder RA</u>. Automating your existing clinical instruments. LAN, 2(3), July 1997.
- 2. <u>Felder RA</u>, Eisner GM, Montgomery SB, Calcagno PL, and Jose PA: Renal alpha-1 adrenergic receptors in canine puppies. Pediatr Res 14:619, 1980.

- 3. <u>Felder RA</u>, Pelayo J, Wargo A, Schoelkopf L, Cooke M, Jose P, Eisner G. Glomerular and tubular dopamine receptors: Effect of sodium intake. Proc 13th Ann Meet Am Soc Nephrol, p138, Washington, DC, 1980.
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- 8. <u>Felder RA</u>, Jose PA: Arterial and renal beta adrenoceptors in the maturing canine. Int J Pediatr Nephrol 3:2, 1982.
- 9. <u>Felder RA</u>, Tina LU, Calcagno PL. Urinary concentration of B₂ microglobulin in a pediatric population. Pediatr Res 14:982, 1983.
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- 16. Felder CC, <u>Felder RA</u>, Holloway RR, Robillard JE, Jose PA. Function of renal D-2 receptors. Pediatr Res 19:376A, 1985.
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- dopamine (DA) on renal blood flow (RBF) in conscious fetal and adult sheep: relation to in vitro DA receptor binding. Pediatr Res 18:367A, 1985.
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- 36. Vaughan DP, Margrey KS, Martinez A, <u>Felder RA</u>. Software integration for a satellite robotic laboratory system. Presented at the 6th International Symposium on Laboratory Robotics, Boston, MA, 1988.
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